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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,990	03/08/2002	Takehiro Ikeda	220325US2	8517

22850 7590 12/23/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

WONG, WARNER

ART UNIT PAPER NUMBER

2668

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,990

Applicant(s)

IKEDA ET AL.

Examiner

Warner Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting steps for the method claims, which renders the claims indefinite. See MPEP § 2172.01.

Claim Objections

The following claims are objected to because of the following informalities:

1. Claim 1, lines 20-21: the additional phrase "provided the communication apparatus" is redundant and confusing. The previous phrase "of its own" in the same sentence is already referring to the communication apparatus. The additional phrase is recommended to be removed.
2. Claim 2, line 4: the limitation "the mobile terminal" lacks antecedent basis. It is recommended to be changed to "a mobile terminal".
3. Claim 2, lines 10-11: the additional phrase "provided the communication apparatus" is redundant and confusing. The previous phrase "of its own" in the same sentence is already referring to the communication apparatus. The additional phrase is recommended to be removed.
4. Claim 4, lines 6-7: the additional phrase "provided the communication apparatus" is redundant and confusing. The previous phrase "of its own" in the same

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sentence is already referring to the communication apparatus. The additional phrase is recommended to be removed.

5. Claim 5, lines 21-22: the additional phrase "provided the communication apparatus" is redundant and confusing. The previous phrase "of its own" in the same sentence is already referring to the communication apparatus. The additional phrase is recommended to be removed.

6. Claim 6, lines 8-9: the additional phrase "provided the communication apparatus" is redundant and confusing. The previous phrase "of its own" in the same sentence is already referring to the communication apparatus. The additional phrase is recommended to be removed.

7. Claim 6, lines 4-12: The paragraph is confusing and limitation of "the mobile terminal" in lines 5-6 lacks antecedent basis. It is recommended that the phrase "the mobile terminal originating the request" in lines 5-6 should be changed to "a mobile terminal originating a location registration request" and in lines 10-11, the limitation "a location registration request" should be changed to "the location registration request".

8. Claim 8, lines 8-9: the additional phrase "provided the communication apparatus" is redundant and confusing. The previous phrase "of its own" in the same sentence is already referring to the communication apparatus. The additional phrase is recommended to be removed.

9. Claim 9, lines 9-10: the additional phrase "provided the communication apparatus" is redundant and confusing. The previous phrase "of its own" in the same

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sentence is already referring to the communication apparatus. The additional phrase is recommended to be removed.

10. Claim 9, line 12: the limitation "the mobile terminal" should be reworded to "the requesting mobile terminal" to match the same referenced limitation on lines 6-7 for clarity.

11. Claim 11, lines 7-8: the additional phrase "provided the communication apparatus" is redundant and confusing. The previous phrase "of its own" in the same sentence is already referring to the communication apparatus. The additional phrase is recommended to be removed.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-2, 4-6, and 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Baker (5,570,366).

Regarding claim 1, Baker describes a system for providing information in a mobile communication system comprising a router (bridge) connected to a predetermined network and a plurality of communication apparatuses (access points) which can communicate with mobile terminals and are connected to the router, in order

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to provide the information on the predetermined network to the mobile terminals (fig. 4, where striped circles are access points, the bridge closest to the access point is the router and the clouds above this bridge is the predetermined network, the mobile terminal is labeled as 'B'), wherein:

the router (bridge) obtains the information from the predetermined network, and transfers this obtained information from the predetermined network to all of the communication apparatuses (broadcast to access points) connected to the router (fig. 4 and col. 3, lines 26-28, where the bridge closest to the access point broadcast via a LAN to the access points); and

each of the communication apparatuses (access point) receives the information from the predetermined network from the router, and transmits this received information from the predetermined network to a service area of its own provided by the communication apparatus (fig. 4, where each access point receives and transmit information via paths denoted by heavy lines to a its service area denoted by an oval shape, see also col. 3, lines 8-10).

Regarding claim 2, Baker describes all limitations set forth in claim 1, Baker further describes:

upon receiving a location registration request from the mobile terminal located in the service area of its own, each of the communication apparatuses registers information relating to the mobile terminal originating the request into a located terminal table of its own held and used for managing the mobile terminals located in the service

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area of its own provided by the communication apparatus (col. 5, lines 55-59 for the terminal table and col. 6, lines 44-52 for the registration process);

each of the communication apparatuses (access points) determines whether information relating to a destination mobile terminal of the received information from the predetermined network is included in the located terminal table of its own (col. 5, lines 65-67 and col. 6, line 1);

when the communication apparatus determine that the information relating to the destination mobile terminal is included in the located terminal table of its own, each of the communication apparatuses transmits the received information on the predetermined network to the destination mobile terminal (col. 5, lines 1-3 and lines 17-18); and

when the communication apparatus determines that the information relating to the destination mobile terminal is not included in the located terminal table of its own, each of the communication apparatuses does not transmit (discard) the received information on the predetermined network to the destination mobile terminal (col. 5, lines 3 & 18).

Regarding claim 4, Baker describes all limitations set forth in claim 2. Baker further describes:

when each of the communication apparatuses (access points) receives a request for deleting the information relating to the mobile terminal that has moved out from the service area of its own provided by the communication apparatus, each of the

communication apparatuses deletes the information relating to the mobile terminal from the located terminal table of its own in response to the request (col. 6, lines 47-52).

Regarding claim 5, Baker describes a mobile communication system comprising a router connected to a predetermined network, and a plurality of communication apparatuses (access points) which can communicate with mobile terminals and are connected to the router (fig. 4, where striped circles are access points, the bridge closest to the access point is the router and the clouds above this bridge is the predetermined network, the mobile terminal is labeled as 'B'), the router comprising:

an information obtaining part (means) for obtaining information on the predetermined network (fig. 4, where the bridge is receiving information from the network above);

an information transfer part (means) for transferring the information on the predetermined network obtained by the information obtaining part to all of the communication apparatuses (fig. 4 and col. 3, lines 26-28, where the bridge closest to the access point broadcast via a LAN to the access points), and each of the communication apparatuses comprising:

an information receiving part (means) for receiving the information from the predetermined network from the router (fig. 4, where each access point receives information originated from the network above its closest bridge);

an information communicating part for transmitting the information on the predetermined network received from the information receiving part to a service area of

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its own provided by the communication apparatus (fig. 4, where each access point passes the information to its service area denoted by an oval shape).

Regarding claim 6, Baker describes all limitations set forth in claim 5. Baker further describes:

an information registration part (means) for registering the information relating to the mobile terminal originating the request into a located terminal table held and used for managing the mobile terminals located in the service area of its own, when the communication apparatus receives a location registration request from the mobile terminal located in the service area of its own (col. 5, lines 55-59 for the terminal table and col. 6, lines 44-52 for the registration process);

an information presence determining part (means) for determining whether the information relating to a destination mobile terminal of the information on the predetermined network received by the information receiving part is included in the located terminal table (col. 5, lines 65-67 and col. 6, line 1);

when the information presence determining part determines that the information relating to the destination mobile terminal is included in the located terminal table, the information communicating part transmits the information from the predetermined network to the destination mobile terminal (col. 5, lines 1-3 and lines 17-18);

when the information presence determining part determines that the information relating to the destination mobile terminal is not included in the located terminal table, the information communicating part does not transmit (discard) the information from the predetermined network to the destination mobile terminal (col. 5, lines 3 & 18).

Regarding claim 8, Baker describes all limitations set forth in claim 2. Baker further describes a second information delete part, comprising:

when each of the communication apparatuses receives a request for deleting the information relating to the mobile terminal that has moved out from the service area of its own provided by the communication apparatus, the second information delete part deletes the information relating to the mobile terminal from the located terminal table in response to the request (col. 6, lines 47-52).

Regarding claim 9, Baker describes:

A communication apparatus (access points) for transmitting information on a predetermined network to a plurality of mobile terminals in a mobile communication system (fig. 4, where striped circles are access points, the clouds above this bridge is the predetermined network, the mobile terminal is labeled as 'B'), comprising:

an information registration part (means) for registering the information relating to a requesting mobile terminal into a located terminal table of its own held and used for managing the mobile terminals located in a service area of its own provided by the communication apparatus when the communication apparatus receives a location registration request from the mobile terminal located in the service area of its own (col. 5, lines 55-59 for the terminal table and col. 6, lines 44-52 for the registration process);

an information presence determining part (means) for determining whether the information relating to a destination mobile terminal of the information from the predetermined network received by the information receiving part is included in the located terminal table of its own (col. 5, lines 65-67 and col. 6, line 1);

an information communicating part (means) for transmitting the information from the predetermined network to the destination mobile terminal, when the information presence determining part determines that the information relating to the destination mobile terminal is included in the located terminal table of its own (col. 5, lines 1-3 and lines 17-18), and for not transmitting (discarding) the information from the predetermined network to the destination mobile terminal, when the information presence determining part determines that the information relating to the destination mobile terminal is not included in the located terminal table of its own (col. 5, lines 3 & 18).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 3, 7, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker in view of Bertrand (6,876,640).

Regarding claim 3, Baker describes all limitations set forth in claim 2. Baker further describes that:

each of the communication apparatuses (access points) sets up a delete time for the information relating to the mobile terminal registered in the located terminal table of its own (col. 6, lines 55-58);

each of the communication apparatuses deletes the information relating to the mobile terminal corresponding to the delete time from the located terminal table of its own when current time reaches the delete time (col. 6, lines 55-58).

Baker lacks what Bertrand describes:

each of the communication apparatuses (fig. 3, PDSN #120[2]) updates the delete (timeout/expiration) time each time the location registration request is received from the same mobile terminal (fig. 3, R-P periodic registration #312 message for a particular PPP from RN #108[2]) after the information relating to that mobile terminal is registered in the located terminal table of its own (col. 8, lines 65-67 and col. 9, lines 1-3, where PDSN refreshes the PPP timeout/expiration).

It would have been obvious to one of ordinary skills in the art at the time of invention by applicant to update the timeout/expiration of a mobile terminal connection entry. The motivation being that "the sending station need utilize the channel only during the time periods required to send the discrete packets" (col. 1, lines 42-45), and refreshing the timeouts via registration requests from the mobile is needed to extend the connection period.

Regarding claim 7, Baker describes all limitations set forth in claim 6. Baker further claim:

a delete time setup part (means) for setting up delete (timeout/expiration) time for the information relating to the mobile terminal registered in the located terminal table by the information registration part (col. 6, lines 55-58);

a first information delete part (means) for deleting the information relating to the mobile terminal corresponding to the delete time from the located terminal table when current time reaches the delete time (col. 6, lines 55-58).

Baker lacks what Bertrand describes:

a delete time update part (means) for updating the delete time each time the location registration is requested by the mobile terminal after the information relating to the mobile terminal is registered in the located terminal table by the information registration part (fig. 3, R-P periodic registration #312 message for a particular PPP from RN #108[2]) after the information relating to that mobile terminal is registered in the located terminal table of its own (col. 8, lines 65-67 and col. 9, lines 1-3, where PDSN refreshes the PPP timeout/expiration).

It would have been obvious to one of ordinary skills in the art at the time of invention by applicant to have a means of updating the timeout/expiration of a mobile terminal connection entry. The motivation being that "the sending station need utilize the channel only during the time periods required to send the discrete packets" (col. 1, lines 42-45), and refreshing the timeouts via registration requests from the mobile is needed to extend the connection period.

Regarding claim 10, Baker describes all limitations set forth in claim 9. Baker further claim:

a delete time setup part (means) for setting up delete (timeout/expiration) time for the information relating to the mobile terminal registered in the located terminal table of its own by the information registration part (col. 6, lines 55-58);

a first information delete part (means) for deleting the information relating to the mobile terminal corresponding to the delete time from the located terminal table of its own when current time reaches the delete time (col. 6, lines 55-58).

Baker lacks what Bertrand describes:

a delete time update part (means) for updating the delete time each time the location registration is requested by the mobile terminal after the information relating to the mobile terminal is registered in the located terminal table after the information relating to the mobile terminal is registered in the located terminal table of its own by the information registration part (fig. 3, R-P periodic registration #312 message for a particular PPP from RN #108[2]) after the information relating to that mobile terminal is registered in the located terminal table of its own (col. 8, lines 65-67 and col. 9, lines 1-3, where PDSN refreshes the PPP timeout/expiration).

It would have been obvious to one of ordinary skills in the art at the time of invention by applicant to have a means of updating the timeout/expiration of a mobile terminal connection entry. The motivation being that "the sending station need utilize the channel only during the time periods required to send the discrete packets" (col. 1, lines 42-45), and refreshing the timeouts via registration requests from the mobile is needed to extend the connection period.

Regarding claim 11, Baker describes all limitations set forth in claim 10. Baker further describes the a second information delete part (means), comprising:

when each of the communication apparatuses (access points) receives a request for deleting the information relating to the mobile terminal that has moved out from the

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service area of its own provided by the communication apparatus, the second information delete part deletes the information relating to the mobile terminal from the located terminal table of its own in response to the request (col. 6, lines 47-52).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Singhal (2002/0164952), McDonald (2002/0114302), Baker (5,490,139) and Kuehnel (5,907,542).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warner Wong whose telephone number is 571-272-8197. The examiner can normally be reached on 5:30AM - 2:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Warner Wong
Examiner
Art Unit 2668

WW



CHIEH M. FAN
SUPERVISORY PATENT EXAMINER